1. INTRODUCTION

Background and Purpose

The Office of National Drug Control Policy (ONDCP) has supported several projects to learn about heavy drug users. These projects include a major study to estimate the number of "hard core" users[1] as well as analyses of the National Household Survey on Drug Abuse (NHSDA) and Drug Use Forecasting (DUF) system.[2] Although these analyses have estimated the number of heavy drug users, they do not predict the correlates that distinguish heavy drug users from the remainder of the population. Such correlates would be developed with models using longitudinal data (i.e., multiple years of panel data) for characteristics (demographics, attitudes, and behavior) of youth to describe and predict heavy drug use by adults.

Given the lack of longitudinal data to describe trends and infer reasons for changes, drug policy research has relied on cross-sectional data (e.g., NHSDA, Drug Abuse Warning Network, Arrestee Drug Abuse Monitoring Program/DUF, Treatment Episode Data Set, Monitoring the Future, Drug Evaluation Network System). Some cross-sectional studies use calendars or other memory aids to collect data that describe the respondent's recollection of an earlier time. Such data appear longitudinal and are quite useful. Memory of family characteristics in high school and attitudes, beliefs, and behaviors is more accurate when collected prospectively than when collected many years after the event (or perception of the event).[3] Examples of factors that influence such retrospective memory are recall delay and telescoping. *Recall delay* refers to reductions in the report of behavior due to the respondent's ability to remember events; the concept describes lower reports of remote events, characteristics, and behaviors than for more recent events. *Telescoping* refers to the allocation of events, characteristics, or behaviors to an earlier or later time period than the one in which it actually occurred.

Longitudinal data can inform researchers and policymakers about changes over time. Such data contain variables that allow better description and prediction of change, since these variables are based on current perceptions and not long-term recall. Possible descriptive questions that could be answered with longitudinal data include: What percentage of marijuana users continue to use marijuana in future years? How well can the movement of individuals between drug use and nonuse be described? Analysts of drug policy data have recommended a longitudinal study to describe and explain changes in drug use and criminal behavior over time.[4] In addition to their usefulness in describing changes over time, longitudinal data can predict future behavior, using variables for prior behavior/attitudes without the weaknesses of retrospective memory.

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[1] R. Simeone, W. Rhodes, D. Hunt, L. Truitt, *A Plan for Estimating the Number of "Hardcore" Drug Users in the United States: Preliminary Findings*, Abt Associates, 1997.
[2] W. Rhodes et al., *What America's Users Spend on Illegal Drugs 1988-2000*, Office of National Drug Control Policy, Office of Programs, Budget, Research, and Evaluation, Executive Office of the President, 2001.
[3] R. Tourangeau, L. J. Rips, and K. Rasinski, *The Psychology of Survey Response*, New York: Cambridge University Press, 2000; N Bradburn, L.J. Rips, S. K. Shevell, "Answering Autobiographical Questions: The Impact of Memory and Inference on Surveys," *Science*, v. 236, pp. 157-161, 1987.
[4] *Informing America's Policy on Illegal Drugs: What We Do not Know Keeps Hurting Us*, Committee on Data and Research for Policy on Illegal Drugs, Charles F. Manski, John V. Pepper, and Carol V. Petrie, Editors, Committee on Law and Justice and Committee on National Statistics, National Research Council, 2001.

The purpose of this study is to:

- Describe the movement of a representative sample of adolescents and young adults (14–21) into and out of drug use;
- Predict the correlates of "heavy drug use," using factors of adolescence/early adulthood; and
- Present a preliminary method for screening and weighting a future sample of drug users.

Organization of this Report

This chapter provides the background and purpose of this report. Chapter 2 introduces the National Longitudinal Survey on Youth (NLSY) and the analytical techniques used in this study. Chapter 3 describes the movement into and out of drug use by adolescents and young adults between 1984 through 1998. Chapter 4 presents an analysis predicting heavy cocaine use. Chapter 5 presents a discussion on longitudinal screening.